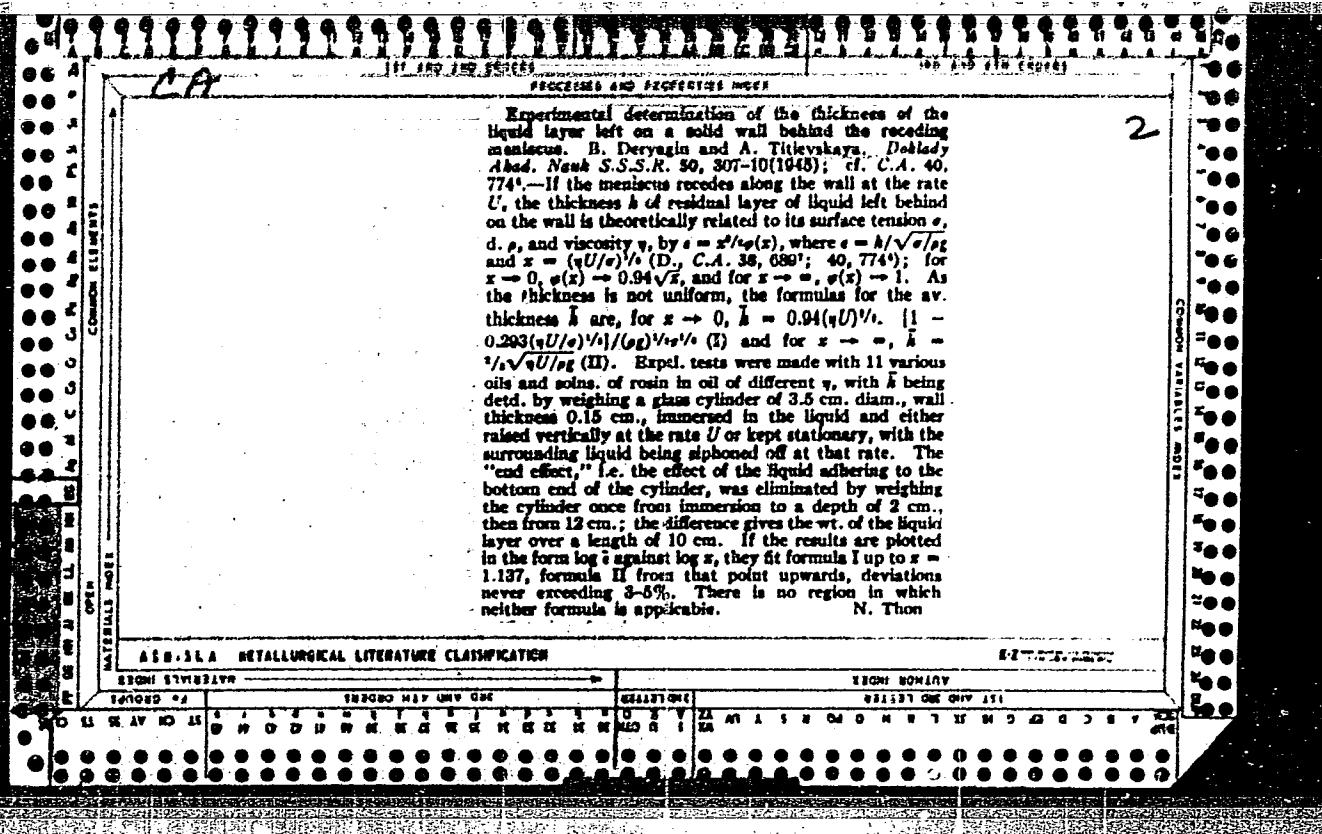


Properties of multimolecular layers of nonaqueous liquids. M. Kusubata & T. Titovskaya. *Compt. rend. acad. sci. U. R. S. S.*, **20**, 332-5 (1940) (in English); *C. A.*, **34**, 4033. —Curves of capillary pressure *vs.* thickness of the layer of liquid between gas and solid surface for various satd. aliphatic hydrocarbons on lead glass are reproduced. The thickness of the liquid layer increases with the no. of C atoms in the mol, to a max. for 8 or 9 C atoms. The solid has a strong effect upon the thickness of liquid layers. The greatest thickness was observed on a metallic surface, a fact of great importance in lubrication practice. The effect of the solid is greatest in the region of comparatively thin layers. The thickness of multimol. layers on a solid depends on the length of the mols. of the liquid. Addn. of small amts. of surface-active substances (e. g., fatty acids), adsorbed at the surface, increases the thickness of the layers. 11 references. A. H. K.

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0"



ZAPAN, M.; CONSTANTINESCU, M.; COSOCARU, Z.; ANDREESCU, V.; TITIRICA, G.

Method for the continuous determination of water softening
by ion exchangers. Rev chimie Min petr 15 no.9:553-555 S '64.

1. Chair of General Chemistry, Institute for Petroleum, Gas
and Geology, Bucharest.

USSR/Electrolytes
Electrometallurgy

Jun 1947

"The Adhesion of Mercury to Glass in Solutions of Electrolytes," A. V. Gorodetskaya,
A. N. Fruakin, A. S. Titiyevskaya, 14 pp

"Zhur Fiz Khim" Vol XXI, No 6

Discusses the experiments carried out with diagrams of apparatus and graphs for
amounts of mercury deposited when various solutions were used.

FA 14T106

DEERYAGIN, B.V., TITIYEVSKAYA, A.S.

Wedging action of free liquid films and its role in the stability
of foams. Koll.zhur. 15 no.6:416-425 '53. (MLRA 7:1)

1. Institut fizicheskoy khimii Akademiya nauk SSSR, Laboratoriya
poverkhnostnykh sil, Moscow. (Foam)

TITIEVSKAYA, A.S.

(2)

↓ Wedging action in free liquid films and its importance in the stability of foams. B. V. Deryagin and A. S. Titievskaya. (*Dokl. Akad. Nauk. SSSR*, 1953, **89**, 1041-1044).--Measurements of the variation of the lifetime of films from aqueous solutions of propyl alcohol and of various fatty acids with the pressure across the film and the concentration of electrolyte therein are discussed in their bearing on the problem of whether such a film can assume a thermodynamically stable state. R. C. MURRAY.

TITEYEVSKAYA, A. B. and DERYAGIN, B. V.

"Static and Kinetic Stability of Free Films" a paper submitted at
2nd International Congress on Surface Activity, 8-12 Apr 57, London. Deryagin,
and Titeyevskaya, Academy of Science, Institute of Physical Chemistry, Bolshaya
Kelduzhskaya 31, Moscow, USSR.

E-5972

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0"

DERYAGIN, B.V.; GORODETSKAYA, A.V.; TITIYEVSKAYA, A.S.; YASHIN, V.N.

Disjoining pressure of electrolyte solutions on polarized
mercury. Koll.zhur. 23 no.5:535-543 S-0 '61. (MIRA 14:9)

1. Institut fizicheskoy khimii AN SSSR i Laboratoriya pover-
khnostnykh yavleniy, Moskva.
(Electrolyte solutions) (Films (Chemistry))
(Electrocapillary phenomena)

TITIYEVSKAYA, A.S.
USSR/Physical Chemistry - Electrochemistry

B-12

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 560

Author : A.N. Frumkin, A.S. Titiyevskaya.

Inst : -
Title : Electrocapillary Phenomena in Solutions of Thallium Salts.

Orig Pub : Zh. fiz. khimii, 1957, 31, No 2, 485-492

Abstract : Electrocapillary curves (EC) for the solutions 1 n. H_2SO_4 + x n. Tl_2SO_4 ($x = 0.01; 0.05; 0.1$ n.) and 1 n. KNO_3 + 0.01 n HNO_3 + x n. $TlNO_3$ ($x = 0.01; 0.1$ and 0.2 n.) were plotted in the region of the polarization of the Hg electrode from +0.1 to -0.45 v (satur. c. e.). A drop of the boundary tension was revealed at the maxima of the curves, as well as a shift of these maxima in the positive direction, which reached 0.29 v in the case of the solution 0.2 n. $RtNO_3$. A little surface activity of Tl^+ ions was revealed also at positive charges of the Hg surface. The conclusion was made that Tl^+ behaves as a typical

Card 1/2

USSR/Physical Chemistry - Electrochemistry.

B-12

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 560

surface tension lowering cation. A detailed thermodynamic analysis was carried out; it showed that this conclusion did not disagree with the conclusion concerning the adsorption of atomic Tl on the boundary between the Tl amalgams and solutions not containing Tl ions (Frumkin A.N., Goredetskaya A.V., Z. phys. Chem., 1928, 136, 451). It was assumed that not only simple, but also complex Tl⁺ions can participate in the adsorption process.

Card 2/2

DERYAGIN, B.V.; TITIYEVSKAYA, A.S.; VYBORNOVA, V.Kh.

Mechanism of the stability of free films of solutions of surface active agents. Koll. zhur. 22 no.4:398-402 Jl-Ag '60. (MIRA 13:9)

1. Institut fizicheskoy khimii AN SSSR, Laboratoriya poverkhnostnykh yavleniy, Moskva.
(Films (Chemistry)) (Surface active agents)

ACCESSION NR: AP500L680

S/0239/54/050/009/1129/1135

B

AUTHOR: Titiyevskaya, R. L.

TITLE: Circulatory changes in the upper limb under static load

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 50, no. 9, 1964, 1129-1135

TOPIC TAGS: cardiovascular, human physiology

Abstract: The hemodynamics of the stressed human arm under static load was investigated in this report. Changes in the arm volume, pulse rate, and circulation of the limb was studied during its voluntary static load. It was found that voluntary submaximal static load of the arm muscles results in expansion of the forearm vessels, increase in volume, and a very slight quickening of the pulse rate. The contractions of the forearm muscles which occur under static loads affect the configuration of the plethysmogram of the given arm. However, they can be differentiated from true vascular response. Under static load, circulatory difficulties develop, of varying intensity for different persons. After arbitrary static load a sizeable increase in volume pulse and volume-pulse circulation of the forearm in all persons is generally observed. Orig. art. has 4 figures.

Card 1/2

ACCESSION NR: AP5004680

ASSOCIATION: Kafedra normal'noy fiziologii Meditsinskogo instituta, Grodno
(Department of Normal Physiology of the Medical Institute)

SUBMITTED: 15Dec62

ENCL: 00

SUB CODE: LS

NO REF Sov: 025

OTHER: 004

JPRS

Card 2/2

UL'YANOVA, A.; TITIYEVSKIY, D.

Advances to specialized collective farms. Den. 1 kred. 20
no. 9:57-59 S '62. (MIRA 15:9)

1. Upravlyayushchiy Litinskim otdeleniym Gosbanka (for Ul'yanova.)
(Litin District—Agricultural credit)

ZAIGRAYKIN, M.I., inzh.; OBUKHOV, L.M., inzh.; TITKIN, N.M., starshiy dorozhnyy master

More about removal from switches. Put' i put.khoz. 4 no.11:16-19
N '60. (MIRA 13:12)
(Railroads--Snow protection and removal)

AGAYEV, O., inzh.; VLASOV, V., inzh.; TITKIN, V., inzh.

How to clean the oil and cooling systems of Diesel engines.
Prof.-tekh. obr. 20 no.6:22 Je '63. (MIRA 16:7)

1. TSentral'nyy uchebno-metodicheskiy kabinet professional'no-tehnicheskikh uchilishch.
(Diesel engines--Maintenance and repair)

ARKHIPOV, B.A.; KOMAROV, Yu.S.; TITKO, B.S.; CHERNUKHA, V.Kh.;
BALMASOV, Ye.Ya., kand.-tekhn.-nauk, nauchn. red.;
ALYAKRINSKIY, A.K., inzh., nauchn. red.; PCSTNOVA, I.D.,
red.; PETRENKO, V.M., tekhn. red.

[Wood processing at the Bratsk Woodworking Combine] Podgo-
tovka drevesiny na Bratskom lesopromyshelnnom komplekse.
Moskva, TSentral'nyi nauchno-issl. in-t informatsii i tekhn-
niko-derevoobrabatyvaiushchei promyshl. i lesnomu khoz.,
1963. 22 p. (MIRA 16:11)
(Bratsk--Woodworking industries)

TITKOS, Ervin

Some remarks on the structure of stationary cyclones. Idejaras 65
no. 4:243-244 J1-Ag '61.

TITKOS, Ervin

"Quantum electrodynamics" by A. Akhiezer and V. Berestetskiy. Reviewed
by Ervin Titkos. Idojaras 65 no.5:311 S-0 '61.

(Quantum theory) (Electrodynamics) (Akhiezer, A.)
(Berestetskiy, Vladimir Borishovich)

BELL, Bela; TITKOS, Ervin

12th General Assembly of the International Union of Geodesy and
Geophysics. Idojaras 64 no.4:250-254 Jl-Ag '60. (EEAI 10:2)

1. Orszagos Meteorologial Intezet.
(International Union of Geodesy and Geophysics)
(Hungarians in Finland)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0

TITKOS, Ervin

Wind forecast on Lake Balaton. Idojaras 67 no.3:168-169 Ny-Je '63.

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0"

TITKOS, Ervin

Wind screening effect of the Balaton highland. Idojaras '67
no. 4:248-249 Jl-Ag '63.

KUROV, S.A.; TITKOV, A.I.; VASIL'YEV, A.M.; GLADYSHEV, G.I.; SHAPSHAL, B.G.
BILYAKHMAN, D.S.; BOGACHEVA, L.M.; FOMIN, V.M.

Critical notes on a reference book ("Tractors and Automobiles."
IU.A.Domatovskii, I.I.Trepenev. Reviewed by S.A.Kurov). Avt.
trakt. prom. no.5:32 My '55. (MLRA 8:8)
(Tractors) (Automobiles) (Dolmatovskii, IU.A.) (Trepenev, I.I.)

TITKOV, A.I.

SHAPSHAL, B.G.; TITKOV, A.I.; TSEYSLER, A.I.

Centrifugal oil cleaning in automobile engines. Avt. i trakt.prom.
no.10:11-16 O '56.

(MLRA 10:1)

1. Ural'skiy avtozavod.

(Automobiles--Engines--Oil filters)

FEDOROV, V.V.; TITKOV, A.M.

Complete mechanization of production processes for winning and transporting peat and further improvement of machinery and lowering of production costs. Torf. prom. 37 no.5:19-20 '60.
(MIRA 14:10)

1. Shaturskiy torfotransport Mosoblsovmarkhoza (for Fedorov).
2. Torfopredpriyatiye Osanovo-Dubovoye Mosoblsovmarkhoza (for Titkov).

(Peat industry)

TITKOV, A.M., inzhener.

Performance of excavators in digging drainage canals. Torf.prom.
33 no.2:20-21 '56. (MLRA 9:6)

1.Petrovsko-Kobelevskoye torfopredpriyatiye.
(Excavating machinery)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0

VEDERNIKOV, G.V.; TITKOV, A.N.

*Use of groups with triangular distribution function of instrument
sensitivity. Razved. i prom. geofiz. no.50:28-37 '63.*

(MIRA 18:3)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0"

MERKULOVA, I.A.; TITKOV, A.N.

Annealing electrical resistance alloys in a hydrogen atmosphere.
Biul.tekh.ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform.

17X16 10:8-9 0 '64. (MIRA 18:4)

TITKOV, A.S.

DOBRETSOV, L.N.; TITKOV, A.S.

Secondary electron emission from the face (100) of single NaCl
crystals. Dokl. AN SSSR 100 no.1:33-36 Ja '55. (MLRA 8:2)

1. Leningradskiy fiziko-tehnicheskiy institut Akademii nauk SSSR.
Predstavлено академиком P.I.Lukirskim.
(Crystallography) (Salt) (Electrons)

TITKOV, A.S., kand.fiziko-matematicheskikh nauk

Method for measuring the integral emissive capacity and the coefficients
of absorption and reflection of various bodies. Trudy Frunz. politekh.
inst. no. 6:107-110 '62. (MIRA 17:9)

TITKOV, A. S.

USSR/ Physics - Secondary electron emissions

Card 1/1 Pub. 22 - 8/50

Authors : Dobretsov, L. N., and Titkov, A. S.

Title : The secondary electron emission from a ridge of a monocrystal NaCl

Periodical : DOK. AN SSR 100/1, 33-36, Jan. 1, 1955

Abstract : Experiments intended to establish certain characteristics (coefficient, thermal effect) of the secondary electron emission from ridges of monocrystals of NaCl, are described. The method of singular pulses was used in the experiments; natural crystals of table salt from the Artemovsk regions (origin) were used as the targets of the emission. Five references; 4 USSR and 1 USA (1939-1953). (1952). Graphs; table.

Institution : Acad. of Scs., USSR, Leningrad Physico-Technical Institute

Presented by: Academician P. I. Lukirskiy, September 13, 1954

Titkov, AS

USSR

Secondary emission of carbon blade L.S. TITKOV

1958

of the Institute of Physics and Mathematics

of the USSR Academy of Sciences

3
3
1

1958 R-1

WT

TITKOV, A. S.

"Investigation of Secondary Electron Emission of a Monocrystal of NaCl." Cand
Phys-Math Sci, Leningrad Physicotechnical Inst, Acad Sci USSR, Leningrad, 1954.
(KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

LITKOV, A.S.

537,533.8
5329. [The] secondary electron emission from the
(100) facet of a single crystal of NaCl. L. N.
DODRETSOV AND A. S. LITKOV. *Dokl. Akad. Nauk
SSSR*, 100, No. 1, 33-77(1955) In Russian.

Much of the work on this topic has been done on layers of salt evaporated in vacuum and deposited on metal supports. The shape of the σ against V_p curve and the value of σ_{max} appear to vary with the worker and the particular target. To overcome difficulties due to individual target surface finishes Shul'man et al. [Zh. tekh. Fiz., 23, No. 7, 1152-60 (1953)] polished their targets with water, whilst the present authors carried out expts. by the same pulse method using targets polished with GOI (State Optical Institute) paste. Like results were obtained, viz (i) the curve of σ against V_p depends mainly on the heat treatment of the target shortly before the measurements are taken, (ii) σ_{max} of a thoroughly warmed target ~ 8 , (iii) coefficient of secondary

electron emission does not depend on temperature in the range from room temp. to 600°. The paper also discusses expts. carried out by the Shul'man method on the secondary electron emission from a fresh cleavage surface of a crystal. Pulses were of 10 μ sec duration, the strength of the primary current pulse was $10^{-1} \text{--} 10^{-3} \text{A}$, diameter of electron pencil on target 5 mm. A device was developed for cleaving crystal plates in a vacuum of 10^{-4} mm Hg . In contrast to the expts. above the secondary electron emission from cleavage surfaces shows a clear temperature dependence. Curves are given for σ against V_p at various temperatures also for σ/σ_0 against θ (angle of incidence of primary electron beam) at

room temps. for a series of values of V_p . Natural crystals of cooking salt from the Artemovskil Deposits were used, and repeating the expts. with a lab.-grown crystal gave like results.

C. R. S. MANDERS

(1)

L 8957-66 EWP(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(l)/ETC(m) WW
ACC NR: AP5026549

SOURCE CODE: UR/0286/65/000/019/0096/0096

AUTHORS: Zalesskiy, V. V.; Potapchenko, V. A.; Titkov, B. P.; Kamanin, V. S.; Orlov,
A. M.; Rugayev, E. I.

ORG: none

TITLE: An ultrasonic defectoscope. Class 42, No. 175301 [announced by Scientific Research Institute of Machine Construction (Nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 96

TOPIC TAGS: defectoscope, defect indicator, error minimization, ultrasonic equipment, ultrasonic inspection, ultrasonic sensor

ABSTRACT: This Author Certificate presents an ultrasonic defectoscope for inspecting items by the shadow method. The defectoscope contains an ultrasonic oscillator and also an oscillation transmitter and receiver, both mounted on the item being inspected. The device is designed to eliminate the error caused by fluctuations of the signal amplitude of the receiver under the influence of changing dimensions of the item made of material with a large ultrasonic absorption coefficient. A modulator is included in the receiver circuit, and the output voltage of this modulator is used for feeding the feedback voltage to the oscillator. The modulator output voltage possesses a fairly high inertia for preventing a change of the oscillator signal level under the action of sharp, brief signal changes caused by the defects. An auxiliary receiver which is used for the voltage control of the oscillator may be mounted on the surface of the

Card 1/2

UDC: 620.179.16

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L 8957-66

ACC NR: AP5026549

item adjacent to the base.

SUB CODE: 09, 13/ SUBM DATE: 03Feb64

BYK
Card 2/2

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0"

L 64958-67

ACC NR: AP6014517

SOURCE CODE: UR/0311/66/000/001/0012/0015

AUTHOR: Titkov, B. V. (Candidate of Technical Sciences)

51
B

ORG: none

TITLE: Fluctuation threshold of the contrast sensitivity of light receivers

SOURCE: Svetotekhnika, no. 1, 1966, 12-15

TOPIC TAGS: image contrast, detection probability, optic detection

ABSTRACT: The detection theory is applied to the problem of determining the threshold of contrast sensitivity of light receivers, and the meaning of fluctuation formulas obtained by A. Rose (Proc. IRE, 1942, vol. 30) and other authors is thus refined and expanded. The formula

$$\kappa = \frac{3.3[\sqrt{2}\arg \Phi(2P-1) + \sqrt{2}\arg \Phi(1-2F)]}{D\alpha \sqrt{\eta t B}}$$

is derived for the threshold contrast, to which it gives a clear, quantitative meaning. In particular, by threshold contrast may be meant a contrast whose probability of correct experimental detection (under given experimental conditions where D, α , t, η , and B have certain fixed values) for a fixed level of probability of a spurious detection has a definite value (for example, P = 0.75 or P = 0.9). The formulas obtained in the paper enable one to coordinate preliminary calculations with the planning of the ex-

Card 1/2

UDC: 525.24

ACC NR: AP6014517

periment, thus facilitating the subsequent comparison of a priori and a posteriori data. The theory discussed can serve as the basis for the development of automatic methods and systems for studying the contrast sensitivity of light receivers. Orig. art. has: 3 figures, 1 table, and 22 formulas.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 002

Card 2/2 Adh

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755820012-0"

TOLUBINSKIY, Vsevolod Ivanovich; SHCHEGOLEV, German Mikhaylovich; RABINOVICH, Mikhail Iosifovich; KUZNETSOV, Vladimir Ivanovich; TOLUBINSKIY, V.I., redaktor; TITKOV, B.S., redaktor izdatel'stva; SKLYAROVA, V.Ye., khudozhestvennyy i tekhnicheskiy redaktor

[Use of local fuels for industrial power engineering] Energotekhnologicheskoe ispol'zovanie mestnykh topliv. Pod obshchei red. V.I. Tolubinskogo. Kiev, Izd-vo Akad. nauk USSR, 1956. 128 p. (MLRA 10:4)
(Fuel) (Power engineering)

KARNAUKHOVA, Zinaida Mironovna; YEL'KIN, Grigoriy Andreyevich; TITKOV,
G.G., red.; MIKHAYLOVA, L.G., red.izd-va; BACHURINA, A.M.,
tekhn.red.

[Album of patterns for sawing logs into lumber] Al'bom postavov
dlia raspilovki breven na stroitel'nye pilomaterialy. Moskva,
Goslesbumizdat, 1960. 162 p.
(Sawmills) (MIRA 14:4)

SLUTSKIN, G.G.; TITKOV, G.G., red.; MEL'NIKOVA, M.S., red. izd-va;
GRECHISHCHEVA, V.I., tekhn. red.

[Brief manual on lumbering] Kratkii spravochnik po lesopileniu.
Moskva, Goslesbumizdat, 1961. 326 p. (MIRA 15:3)
(Lumbering)

GOLIKOV, Valentin Ivanovich; KUCHEROV, Ivan Konstantinovich; RESINA,
Zinaida Fedorovna; KHRONTSOV, Mikhail Ivanovich; MOZHAROVSKIY,
S.I., retsenzent; TITKOV, G.G., retsenzent; OBRAZTSOV, S.A.,
red.; STRATILATOVA, K.I., red.izd-vs; PARAKHINA, N.L.,
tekhn.red.

[Lumbering and woodworking technology] Tekhnologija lesopil'no-
derevoobrabatyvaiushchego proizvodstva. Moskva, Goslesbumizdat,
1960. 383 p.
(Woodworking industries) (Lumbering)

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755820012-0

CIA-RDP86-00513R001755820012-0
SILINOV, G. G.

Auxiliary tables for computing the volume of sawn lumber products
Moskva, Goslesbumizdat, 1952. 392 p. (54-18603)

HF5716.L8T63

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755820012-0"

TITKOV, G.G.; GREYNIMAN, S.B.; SEMENOV, A.I., red.; BACHURINA, A.M., tekhn.
red.

[Auxiliary tables for computing the volume of sawn lumber products]
Vspomogatel'nye tablitsy dlia ischisleniya ob"ema pilomaterialov.
Moskva, Goslesbumizdat, 1957. 367 p. (MIRA 11:7)
(Lumber trade--Tables and ready-reckoners)

TITKOV, GLEBNTY ~~SHCHERBY~~ GRIGORIY VIKH

b/s
722.13
.126

IZBRATOYE RUKOVODSTVO PO SOSTAVLENIIU I RASCHETU KARINOV (COMPUTER GUIDE
ON THE COMPILING AND CALCULATION OF "TAKIE SCHREIBEN") MIRANIA,
GOVERNMENTAL, 1967.

49 P. DINERS., GRAINS, TABLES.

AT HEAD OF TITLE: VOSCCW. TSENTRAL'NYY NAUCHNO-ISSLEDOVATEL'SKIY
INSTITUT MATEMATICHESKIX CHADOKH DREVISTY.

TITKOV, Georgiy Georgiyevich, kandidat tekhnicheskikh nauk; POPOV, N.A.,
redaktor; SHAKHOVA, L.I., redakter; KOLEZNIKOVA, A.P., tekhnicheskiy redakter.

[Concise directions for drawing up and calculation in lumber
milling] Kratkie rukovodstva po sestavleniu i raschetu pestavev.
Moskva, Goslesbumizdat, 1955. 49 p. (MIRA 9:5)
(Sawmills)

TITKOV, I.; PROKHVATILOV, V.

Zero stage in ship repairs. Mer. flot 22 no.5:31 My '62.
(MIRA 15:5)
1. Zamestitel' nachal'nika planovo-proizvodstvennogo otdela
Nakhodkinskogo sudoremontnogo zavoda (for Titkov). 2. Nakhodinskiy
sudoremontnyy zavod (for Prokhvatilov).
(Merchant ships—Maintenance and repairs)

TITKOV, N.

Activity of the committee on plugging cements. Neft. khoz.
38 no.10:66-68 0 '60. (MIRA 13:9)
(Oil well cementing)

TITKOV, N.I., nauchnyy sotrudnik; DON, N.S., nauchnyy sotrudnik.

Dynamics of change in the mechanical strength of cement samples
during long storage in various media. Neftianik 2 no.8:29-30
Ag '57. (MIRA 10:10)

1. Institut nefti AN SSSR.
(Cement--Testing)

Titkov, N.I.

AUTHOR: Titkov, N.I., and Berezhnoy, A.I. 93-57-7-4/22

TITLE: Cement Mixtures of Good Cementing Quality (Tsementnyye rastvory s vysokimi tamponiruyushchimi svoystvami)

PERIODICAL: Neftyanoye khozyaystvo, 1957, Nr 7, pp 13-18 (USSR)

ABSTRACT: The cement and water proportion in pastes made of cements from the Sterlitamak (Sterlitamakskiy zavod) and the "Komsomolets" plants is 0.45 and a change in this proportion does not substantially affect the properties of the cement mixtures (Table). However, normal cements possess poor rheological qualities and are ineffective (Fig. 1). Therefore, scientists of the oil well drilling laboratory at the Petroleum Institute of the AN USSR (Institut nefti AN SSSR) and G.A. Shaykh-Ali and A.G. Shevchenko of the TsNIL oil field laboratory under the Association of the Tartar Petroleum Industry (Tatneft') performed about 550 experiments in order to produce cement mixtures of good

Card 1/3

Cement Mixtures of Good Cementing Quality

93-57-7-4/22

cementing quality. They used seventeen types of cements from the Sterlitamak plant, five from the Vol'sk plant (Vol'skiy zavod), and one from the Pashiya plant (Pashiyskiy zavod). Liquid CaCl₂ and brand KBZh sulfite waste liquor (SSB) served as additives. Fig. 1 shows the setting time of the cement mixtures and the percentage of CaCl₂ additive. Fig. 3 shows the relationship between heat generation, setting time, and the percentage of CaCl₂ additive. Fig. 4 shows the compressive strength of cement containing more than 10 and less than 10 percent CaCl₂ after storing for several days in a moist area. Fig. 5 shows that an addition of 1-2 percent SSB to a cement mixture with a 10 percent CaCl₂ content will reduce the pumping time for the mixture 30 to 40 minutes. Fig. 6 compares the strength of normal cement and cement with a CaCl₂ and SSB content. The authors have established that

Card 2/3

Cement Mixtures of Good Cementing Quality

93-57-7-4/22

1) calcium chloride and sulfoligninic acid have a combined effect on the hardening rapidity of cement mixtures, 2) it is mainly tricalcium aluminate ($3\text{CaO}\cdot\text{Al}_2\text{O}_3$) of a clinker which endows cement mixtures with new properties, 3) escape of drilling fluid during drilling can be prevented by preparing the mixtures of cement from the Sterlitamak plant in the following proportions: w/c ≈ 0.4, CaCl_2 ≈ 10 percent, SSB ≈ 1-2 percent, and of cement from the "Komsomolets" plant in the following proportions: w/c ≈ 0.4, CaCl_2 ≈ 8.5 percent, SSB ≈ 4 ± 5.5 percent. The optimum amount of CaCl_2 and SSB for cement mixtures has been verified by field data. It was also established that a cement mixture containing additives hardens within two hours instead of the 14 hours required by normal cement. This will shorten the delay of cement hardening from 14-16 to 2-3 hours. There are 6 figures, 1 table, and 8 Soviet references.

AVAILABLE: Library of Congress

Card 3/3 1. Adhesives-Development

~~TITKOV, N.I.~~; VARZANOV, M.A.; SLEZINGER, I.I.; PETROVA, O.P.;
~~BORISOV, G.I.~~

Drilling by means of electric discharges in fluida. Neft.
khoz. 35 no.10:5-10 0 '57. (MIRA 11:1)
(Oil well drilling)
(Electric discharges)

TITKOV, N.I.

14(5) b.u.t. PHASE I BOOK EXPLOITATION SOV/1393

Akademiya nauk SSSR. Institut nefti

Trudy, t. 11. Neftepromyslovoe delo (Transactions of the Petroleum Institute, Academy of Sciences, v. 11. Oil Field Industry) Moscow, Izd-vo AN SSSR, 1958. 346 p. 2,000 copies printed.

Resp. Ed.: Krylov, A.P.; Ed. of Publishing House: Sevina, Z.A.; Tech. Ed.: Kiselyeva, A.A.

PURPOSE: This book is intended for geological engineers specializing in oil well drilling and oilfield operations.

COVERAGE: This book, a collection of 26 articles, describes the mineral composition of hard, friable, and plastic rocks, their deformation and destruction at various geological platforms of the Soviet Union; it further presents designs of rock bits with different cutters, which can be successfully used for crushing various formations. The effect of electric current on binding

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substances such as cement slurry, plaster and lime solutions, as well as their treatment with electric current carried out to accelerate hardening are also discussed. It is stated that electric current may be used for strengthening the walls of a well, and that this promising method has been successfully tested on various cores. Designs of electrodes used for this purpose are presented. Drilling of deep wells with conventional and sectional turbodrills is analyzed, and turbodrill parts described. Oil well drilling in eastern Soviet regions appears to be complicated by an excessive filtration of drilling fluid into formations of various horizons. To overcome this, methods improving the plugging properties of cement slurry are proposed. In this connection the adhesion of stone-like cement to rocks of different composition has been studied with the aid of various apparatus, and the filtration of drilling fluid into formations of Tatar Republic oilfields has been analyzed. Methods of eliminating the negative centrifugal force of presently used deep well pumps are proposed, as are new systems of pump jacks. The restoration of bottom-hole pressure in formations with

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varying permeability is investigated on the basis of theoretical calculations and graphs. Attempts to extract petroleum from the loose sands of the Romashkino oilfield by injecting water or certain petroleum products, free of paraffin and tar, are described and results of experiments given. The method of stimulating petroleum flow in various petroliferous provinces by injecting high pressure gas into a partially depleted formation is explained, and some recommendations given. The process of subterranean burning of a part of the petroleum deposit, as a thermal method of petroleum recovery, is discussed, and laboratory experiments illustrated by numerous graphs. Tectonics of soft, clayey rocks are investigated in connection with the problem of caving, and the results of experiments made to ascertain the effect of tension and moisture on the stability of such rocks are analyzed. The influence of pressure on the selective saturation of quartz rocks with water or petroleum, as well as on the saturation of porous rocks is investigated. Laboratory experiments were made in an attempt to find out the saturation rate of various minerals wetted with water after being treated

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with various solutions. Tests conducted in connection with the problem of equipment corrosion proved that DC-Na solution is a good inhibitor against corrosion and that sulfide coating is a good protective agent for steel against corrosion. The procedure of turbine drilling under different conditions is analyzed and the advisability of lowering the upstream pressure of the drilling fluid is emphasized. The prevention of caving by applying various methods is discussed, and the application of a coefficient established on the basis of calculations is recommended. Hydraulic fracturing of formations and the treatment of oil wells with hydrochloric acid are also recommended as efficient methods for boosting crude oil production. The development of natural gas recovery in the Saratov and Stalingrad regions is outlined, and the advantage of the utilization of natural gas on a larger scale is emphasized. Bibliographic references accompany each article.

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Sov/93-58-7-5/17

AUTHOR: Titkov, N.I. and Vinarskiy, M.S.

TITLE: Studying Absorbing Horizons When Drilling for Oil (Issledovaniye pogloshchayushchikh gorizontov v protsesse bureniya neftyanых skvazhin)

PERIODICAL: Neftyanye khozyaystvo, 1958, Nr 7, pp. 17-23 (USSR)

ABSTRACT: This article states that capital investment in measures to prevent water escape during oil well drilling at the Romashkins oilfield (Table 1) can be reduced by studying more thoroughly the characteristics of the absorbing horizons and the conditions of fluid flow. This kind of study cannot be made by the stable yield method (Refs. 1,2) nor by the pressure build-up curve method (Ref.3) since they require long periods of water injection and well shut-off (Ref.4). The study of the liquid-level in relation to excess pressure drop in the absorbing horizons, as proposed by V.I. Mishchevich (Ref.5), has been criticized by V.N. Sachelkachev (Refs. 6,7). Nevertheless this method was employed to study the water conduction of individual strata at the Romashkins oilfield. In this study the liquid-level was measured with an electric level gage designed by Ye.P. Luk'yanov of TatNEI. The data were used to establish an empirical relationship between the rate of liquid-level drop at designated intervals in the well and the excess pressure on the absorbing horizon (Fig. 1). This relationship is expressed by $v = CP^2$, where v is the rate of change in

Card 1/2

Studying Absorbing Horizons (Cont.)

Scv/93-58-7-5/17

liquid level at designated intervals in the well, C - the rate of liquid-level drop at the atmosphere of excess pressure drop on the absorbing horizon, P - the excess pressure on the absorbing horizon created by the liquid-level height in each of the designated space intervals, and n - the exponent of fluid filtration in the well. The above formula does not differ from the formulas employed by M.S. Vinarskiy (Ref.8), B.M. Shayderov and A.A. Geyvorotskiy (Ref.9), and V.I. Mishchevich (Ref.5) in determining the absorptive capacity of formations. Furthermore, the first three of these scientists used the Shezi (Chezy)-Krasnopol'skiy law in their determinations, and Mishchevich used the formula of Smekler as reflected in Fig. 3. The shortcomings in the approach of these scientists are pointed out by V.P. Yakovlev (Ref.10). The authors of the present article maintain that the liquid-level method and graphic calculation of results are desirable for the study of absorbing horizons. This method is based on data characterizing each absorbing horizon and this makes it possible to determine the constant values for the $v = CP^n$ formula which characterizes the absorbing horizons. The authors support their conclusion by plotting curves of liquid-level drop (Fig.2) on the basis of data for two wells (Table 2). There are 3 figures, 2 tables, and 10 Soviet references.

Card 2/2 1. Well logging--Applications

11(0)

SOV/93-58-9-5/17

AUTHOR: Tikhon, N.Z. and Vinogradsky, M.S.

TITLE: The Quality of Cement Mixtures for Plugging Leaks During
Oilwell Drilling (O kachestve smesey dlya tampirovki zon
pogloshcheniya v boryashchikhsya skazhivayushchim)

PERIODICAL: Neftyanaya khimicheskaya, 1958, No 9, pp 26-31 (URSS)

ABSTRACT: The authors state that the specifications for RSS -
Bytrosilicheskye smesey (rapid-set cements)
fail to specify the composition of the cement and of the
addition agents. They suggest, therefore, that the
chemical analyses of cements be made by the RONNI
scientific-research institutes and the mineralogical com-
position determined from the chemical analysis data with
the aid of a set of tables as shown in Fig. 1. The authors
state that the oilwell drilling laboratory of the Institut
nefti AN SSSR (Petroleum Institute, AN SSSR) and the labora-
tories of the NTONNI Drilling Department have studied the
properties of fluid glass, calcium chloride, soda ash, and
aluminum sulfate as set-accelerating agents and determined

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II(0)

DK/96-52-6-5/27

The Quality of Concrete Mixtures (Cont.)

that aluminum sulfate, which is available in large quantities at low cost, is a good additive for plugging cements [Ref. 3]. It was also noted that P.L. Reznichenko and other scientists [Ref. 1, 4, 5] have determined that self-accelerating agents increase the hardness of the minerals and provide dispersion of the cement granules. Knowing that the accelerating effect produced by self-accelerating agents favors the hydration process, the authors made a separate study of the effect of various additives on the setting time of cement slurries, as well as of the pozzolanic effect of these admixtures. This study was carried out with cement from the Strel'tsovskiy plant-Sverdlovskiy kombinat (Sverdlovsk Soil and Cement Combine) in the Bishkek area, and from the "Komsomolsk" Plant in Vol'noe, Saratov Oblast'. The results given in Fig. 2 and Tables 1-2 confirm the pozzolanic effect of the admixtures, as well as the favorable effect of aluminum sulfate on the setting time of cement slurries. Table 2 and Fig. 3 show how to determine the required composition of cement slurries.

Part 2/3

11(0)

SCV/93-58-8-5/27

The Quality of Concrete Mixtures (Cont.)

including set-accelerating agents for plugging purposes during drilling. The data on liquid glass as a set-accelerating agent were obtained from the study of "Rastvorimoye steklo, yego svoystva, polucheniye i primeneniye" (Fluid Glass, Its Properties, Production, and Application), by A.I. Zhilina, published in Sverdlovsk-Moscow in 1939. There are 3 tables, 3 figures, and 5 references, 4 of which are Soviet and 1 English.

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CIA-RDP86-00513R001755820012-0

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face temperatures and pressures] Novye dobavki k tsamen-
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TITKOV, N.I.; KORZHUYEV, A.S.; DON, N.S.

Effect of electric current on solutions of binding materials.
Trudy Inst.nefti 11:53-72 '58. (MIRA 11:12)
(Binding materials) (Electric currents)

APPROVED FOR RELEASE: 07/16/2001

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KORZHUYEV, Aleksandr Sergeyevich; TITKOV, Nikolay Iosifovich; MOROZOV,
S.S., prof., doktor geologo-mineralog.nauk, otv.red.; NIKOLAYEVA,
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(Soil compaction) (MIRA 12:11)

14(5)

PHASE I BOOK EXPLOITATION

SOV/2641

Titkov, Nikolay Iosafovich, Aleksandr Sergeyevich Korzhuyev, Vladimir Georgiyevich Smolyaninov, Vladimir Aleksandrovich Nikishin, and Anna Yakovlevna Neretina

Elektrokhimicheskiy metod zakrepleniya neustoychivyx gornykh porod (Electrochemical Method for Consolidation of Unstable Rocks) Moscow, Gostoptekhizdat, 1959. 77 p. (Series: Novaya tekhnika neftyanoy promyshlennosti) Errata slip inserted. 2,000 copies printed.

Ed.: M.A. Geyman; Exec. Ed.: N.D. Dubrovina; Tech. Ed.: A.S. Polosina.

PURPOSE: This book is intended for engineers and technicians of the petroleum and mining industry, for constructors of railroads, highways, and hydraulic systems, and for scientists concerned with the problem of consolidating unstable soft rock formation.

COVERAGE: The book presents scientific principles of the electrochemical method applied in order to consolidate unstable soft rocks, and reviews results of laboratory and field tests conducted to appraise the practicability of

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Electro-chemical (Cont.)

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this method. Results of tests made by the Petroleum Institute of the Academy of Sciences, USSR, indicate that this promising method may find a wide application in petroleum and natural gas production. It may result in the elimination of metallic casing pipes inasmuch as the use of direct current combined with the application of special solutions (electrolytes) can consolidate argillaceous and other rocks to the extent which will make the further reinforcement of borehole walls unnecessary. It has been ascertained that electrochemical consolidation of walls of wells drilled in clayey formations can be applied to wells in process of drilling as well as to wells already in production. The book contains a detailed analysis of tests made under different geological conditions in the Tatarskaya ASSR, illustrates results of these tests in numerous tables, shows the composition of solutions used, and describes the laboratory and field equipment with the aid of which the experiments were carried out. The method under review can be successfully used in coal and ore mining, and in the construction of ventilation shafts, of hydraulic and irrigation systems, etc. The authors thank Academician P.A. Rebiner, Senior Scientific Assistant N.N. Serb-Serbina, and Professor V.P. Petrov for their valuable comments. They also thank members of the Petroleum Institute of the Academy

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Electro-chemical (Cont.)

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of Sciences V.Ye. Bykov, Ye.G. Getts, S.N. Yelovikova, N.I. Maksimova,
and A.S. Chekhlov. There are 5 references: 3 Soviet and 2 German.

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method. Neft.khoz. 37 no.3:38-40 Mr '59. (MIRA 12:5)
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